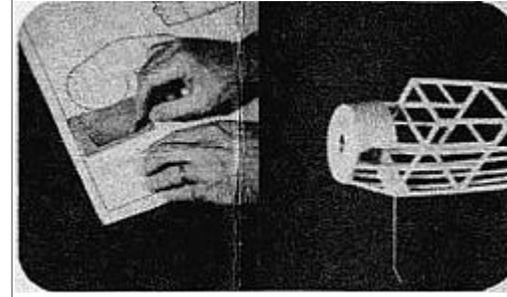
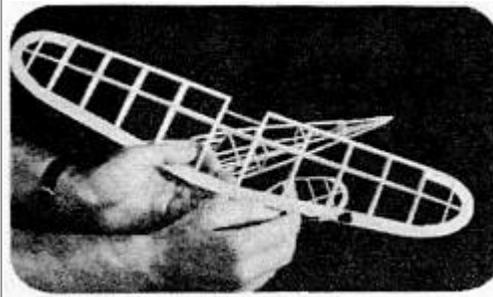
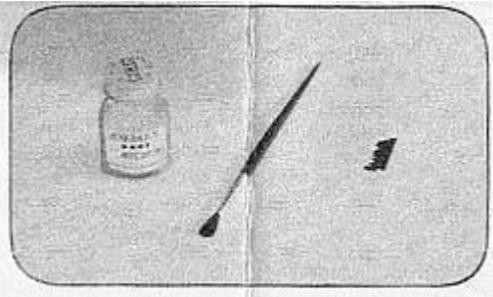


Comet Kit Tissue Guide

This tutorial was originally a free handout to Comet Kit builders in the 30's, 40's and later. It is on The SAM site by virtue of Jack Sugameli, who posted the original graphic on his web site at <http://www.supercraftmodels.com> . A place well worth an old time modeler's time to visit. I edited the graphic and typed the text so the load time on the web would be shorter and the text more readable, but Jack and "grandpa" Don Garofalow, designer of the "paratrooper" and other Old Timer models who founded Supercraft models deserve the credit. Visit their site. It's a lot like a step back in time- a better one--Ned Nevels, SAM webmaster

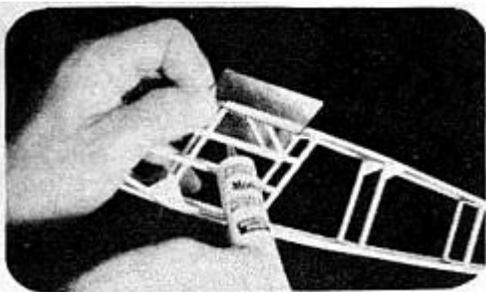
Note: These pictures will show you how to go about covering your model---ANY model. Always remember that flat areas can be covered with one piece of tissue. Places which are curved will have to be covered with two, three or more pieces. If you try to cover a curved area with one piece you will have a wrinkled looking mess. Pull it up tight as you stick it down---four or five inches at a time--it' got to have a smooth look. Later, when you shrink it, it will have a stretched smooth look--after doping it will have the drum tight look. We think you can do a beautiful job!



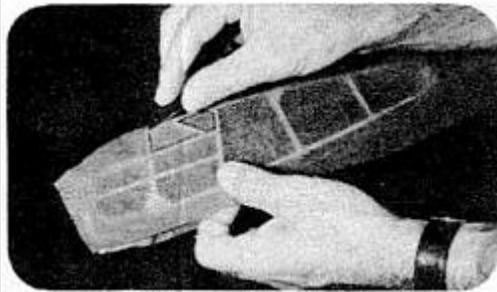
1. The tissue covering shrinks as it dries until the whole surface gets a stretched smooth look. Now it's ready for its protective coating of dope. Brush on one coat of clear dope and let dry - Add one or two more coats later. This will give the tissue a finished look and will make it easier to handle. Smaller models have a weaker framework which will warp if the dope is too thick or too strong. Be sure the dope you use is o.k. for the job.

2. Coat the wing, fuselage, stabilizer and rudder frame. Work with one coat of clear dope. Because the balsa wood will soak it up the liquid so quickly, this first coat will help fill the pores of the wood. Then it won't dry up too fast while you are attaching the tissue

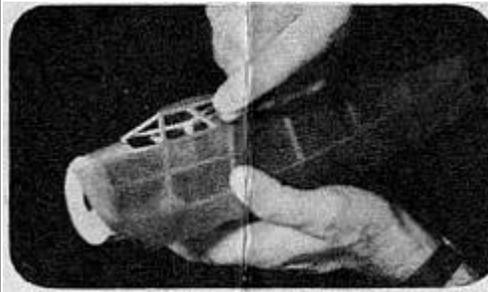
3. Before you start covering - put on the paper cowling if your model has one. (Unless it's a nose or windshield cowling to be put on later) Dope a piece of tissue over the cowling on the plan - the same color the fuselage will be in this case, when it's dry, cut the cowling out and glue it neatly where it belongs. The paper cowling must go on first so that you can cover around it.



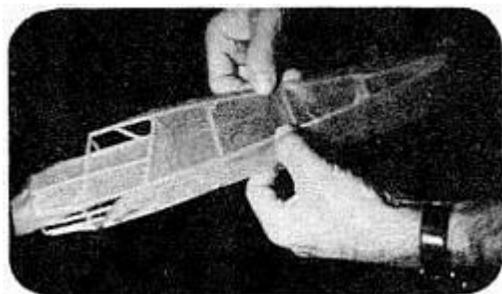
4. If your airplane needs celluloid for windows, you should put this on also before you start covering. First, cut the windows to the size shown on the plan--have them ready. Use a "bead" or thin line of cement along the center of the strips where the windows go. When you put on the celluloid, the cement will spread a little and the window will be glued neatly to the framework. Remember, if you use too much glue, you're going to slobber up the windows.



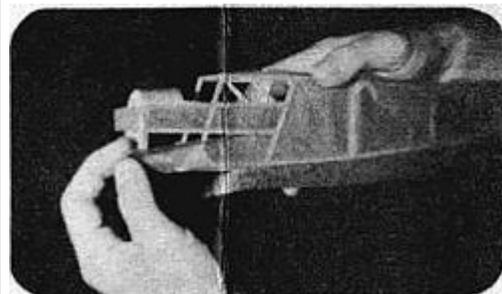
5. Attach the tissue around the windows first. Use a big piece as you see it in the picture above, and always shiny side up. Brush a "bead" of dope over the strips where you glued the celluloid. Now put the tissue over the windows and smoothen it out with your finger- It should dry in a minute or two. Cut out the tissue over the windows as shown. The light coming through the celluloid will show you where to run the razor blade.



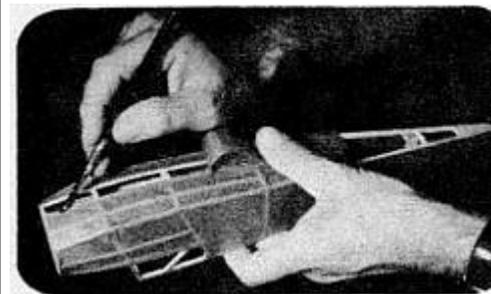
6. Lift off the tissue over the windows. Now the window strips will show as they should--as window frames like the real airplane. Brush on a coat of dope to be sure they will be on to stay. If you should cloud up the celluloid with dope, a thinner soaked piece of kleenex will make it clear again--don't over do it or you may soften the celluloid.



7. Cover the flat area from the windows back. Brush dope on the framework as

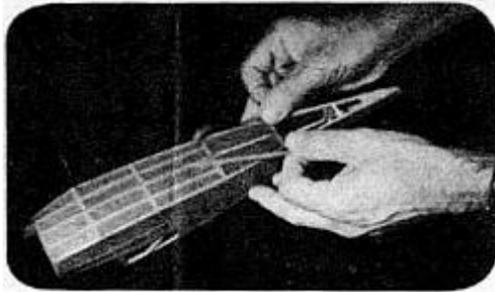


8. Sometimes, if your fuselage has a little curve or bend, you can cover it with the same



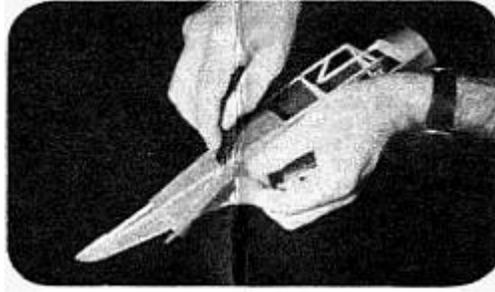
9. To cover a curved or round part, attach the tissue one or two little sections at a time--

shown. If you don't stretch it or pull it smooth it will have wrinkles after it has been shrunk (see picture 18). The dope should dry in a minute or two, sticking the tissue nicely. You can cover more than four or five inches at a time if you can stay ahead of the fast drying dope.



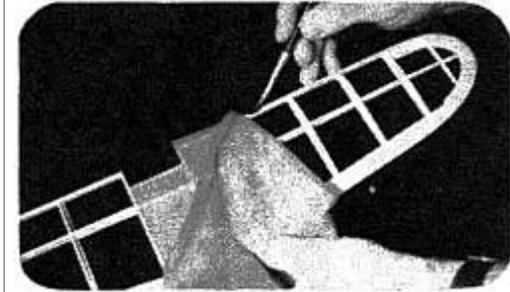
10. Trim the edges of the section by running the razor blade over the middle of the strips---try not to miss. (Of course, you can trim the tissue before you put it on, but it's easier to stretch smooth this way.) Pull the trimmed edges before the dope is fully dry and they will come off nice and clean. If they stick, loosen them with dope. Be sure each section is dry before going on to the next one.

bigger piece of tissue (shiny side up) by slitting it as shown. Slitting it this way is like using a separate piece to keep from getting wrinkles. Make the slit by running the razor blade right in the middle of the wood strip. If you can't stick the tissue down smooth because of wrinkles, then you'd better use a separate piece altogether.

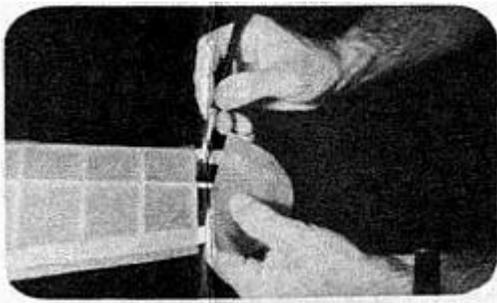


11. Cover the remaining open areas but be sure to keep the openings for the wing and stabilizer uncovered. These openings will have the wing and tail glued over them so there isn't any reason for covering them. Trim the edges right along the longerons or corner strips as shown. If you trim the piece to size before you attach it, you'll soon find it hard to do. So, always do the trimming right on the model--this is the correct way.

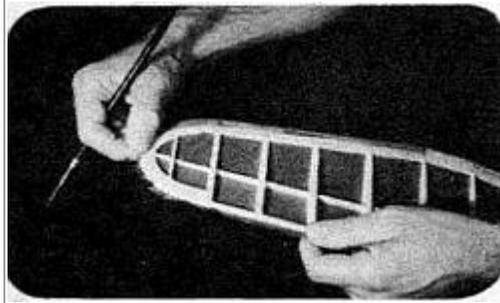
most always you will do a better job with one little section as shown. Brush the dope on the wood strips carefully. Try not to get any dope on the bare tissue until it is shrunk. Stretch it smooth over the opening.



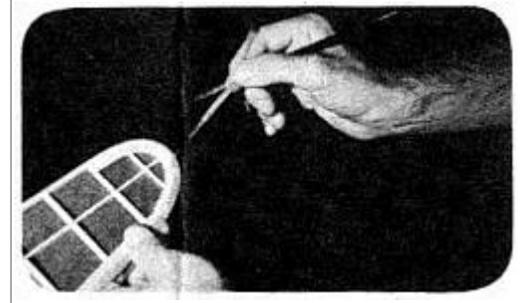
12. Cover the top center section of the wing to start, unless your model is a low wing (remember to keep the shiny side up.) In some cases the center section is left uncovered because it's going to be glued there--or there may not be any center section. Whatever the case, always start at the center and work toward the wing tip. Cover about four or five inches at a time and be sure to stretch the tissue smooth. Don't stick it to the ribs.



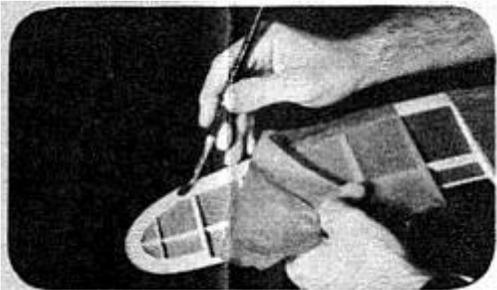
13. As you reach the wing tip you may find a few wrinkles showing up which cannot be stretched smooth. If this happens, attach the tissue to the second rib from the tip and cut it there. Cover the wing tip separately as shown. On some wing tips you may have to cut the tissue again at the first rib, using two pieces of tissue to cover the tip. It really depends on how much it is curved. Most of the time, one piece of tissue is enough.



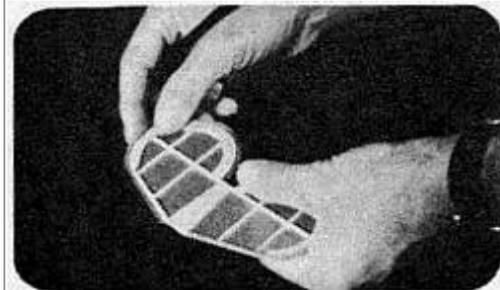
14. When you've covered the top side of the wing, turn it over and trim the tissue about 1/4" away from the framework. Now cut slits around the wingtip curve as shown and overlap the tissue along the whole edge of the wing. Brush the dope onto the wood rather than the tissue.



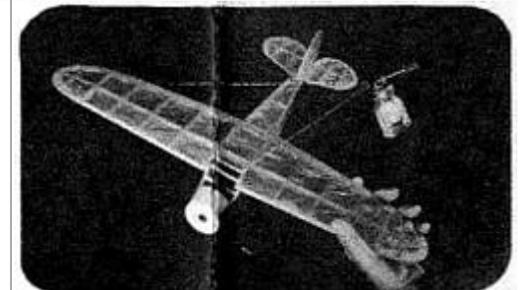
15. Now run the razor blade lightly (just enough to cut the tissue) inside the whole wing edges as you see it in the picture. All you do now is lift off the extra tissue and you should have a nice clean trim. If the extra tissue won't pull off, brush on a little dope to loosen it.



16. Cover the bottom of the wing as you would any flat surface--



17. The stabilizer and rudder are usually flat and can be covered with one piece of tissue for each side. When the dope

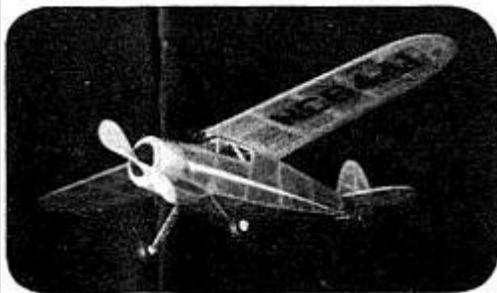
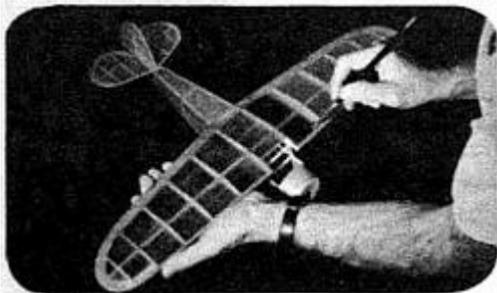


18. All of the covered parts of your airplane should be glued

stretch the tissue smooth--a few inches at a time and don't stick it to the ribs. Run the razor blade along the edge, trimming it neatly. Do not cover the wing center bottom. This should be left open because it's going to be glued.

dries, trim the edge about 1/8" away from the framework and slit it as you did the wing tip, around the curve. Dope and overlap the edges as you did the wing. If the tissue overlap does not want to stay down, you can coax it by moistening your finger with saliva and running it along the edges. Now cover the other side and trim.

together carefully, checking with the plans. When it's all assembled, spray the model *lightly* with water to shrink the tissue. Use a mouth spray, hand spray or atomizer is best. Wet the tissue but *don't* get it too wet---handle the model very carefully so you won't make holes in it. Let the water dry off.



19. The tissue covering shrinks as it dries until the whole surface gets a *stretched smooth* look. Now it's ready for it's protective coating of dope. Brush on one coat of clear dope and let dry-- add one or two more coats later. This will give the tissue a finished look and will make it easier to handle. Smaller models have a weaker framework which will warp if the dope is too thick or too strong. Be sure the dope you use is O.K. for the job.

20. After your airplane has it's finished tissue work, glue on the finished nose cowl or nose block. You should paint all wood parts, like struts, landing gear and such with colored dope to match or compliment the color of the tissue you used. Add the finishing touches---main wheels, tail wheel or skid, propeller and license numbers and the like.

Many thanks to Jack Sugameli and Don Garofalow of Supercraft Models for the scan of the original Comet hand out that has resulted in these two pages.